



Courtesy Vision Quest Windelectric

# Canada's Approach to **Green Power** under Kyoto

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10<sup>th</sup> National Green Power Marketing Conference  
Austin, Texas October 25, 2005

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# Canada and Kyoto



- Canada and 188 other countries (including U.S.) are party to the 1992 UN *Framework Convention on Climate Change*
  - Seeks to stabilize global greenhouse gas emissions "**at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system**".
  - Intergovernmental Panel on Climate Change suggests global GHG emission reductions ultimately >65% are necessary
- Canada ratified *Kyoto Protocol* in December 2002
  - Protocol came into force February 2005 (now ratified by 155 countries)
  - Reduce GHG emissions from developed countries by 5.2% from 1990 levels, during 2008-2012
  - Canada's commitment is for a 6% reduction from 1990 levels
- Conference of the Parties #11 ("COP 11") in Nov/Dec 2005 in Montreal will focus on post-2012 regime
- First Meeting of the Parties to the Kyoto Protocol ("MOP 1") also being held jointly with COP 11





# Canada's Climate Change Plan



## *Key components:*

- Partnership Fund (collaborative with provinces & territories)
- Large Final Emitters (LFE) System (GHG emission intensity constraints & emissions trading, covering 55% of Canadian emissions)
- “Climate Fund” (Canada Emission Reduction Incentives Agency)
- **Offset Credit System**
- Other programs—including
  - Wind Power Production Incentive (4,000 MW by 2010)
  - Renewable Power Production Incentive (1,500 MW by 2010)
  - **Green Power Procurement** (for 20% federal electricity; also assist in developing **voluntary green power markets**)
- Adaptation
- International links





# Offset System Overview



- National voluntary program proposed under the *Canadian Environmental Protection Act*
- Offset System to create domestic 'offset credits' & deposits in Canadian tracking system accounts
- No restrictions on participants in offset projects; (but no Joint Implementation (JI) projects hosted in Canada)
- Credits issued for reductions & removals achieved from registered offset projects started in 2000 or later, for 8-year period beginning as early as 2006





# Market for Offset Credits

⇒ supports Green Power Markets



## Demand for offset credits

- Large Final Emitters, Climate Fund, **others** (no restriction on who can buy offset credits but they are not Kyoto compliant units)

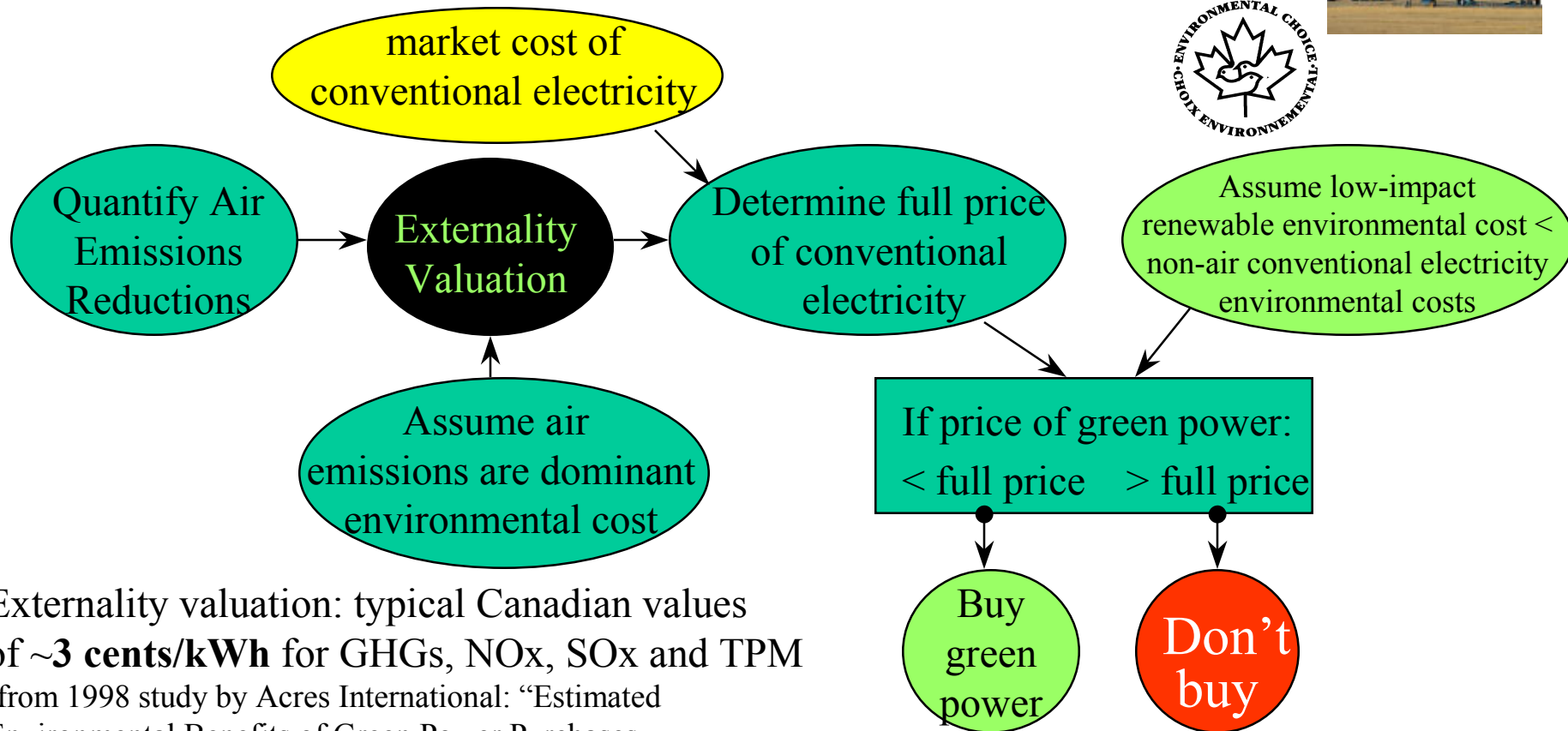
## Trading of offset credits

- Various mechanisms possible (e.g., bilateral contracts, brokers, private-sector trading platforms)
- \$15 tonne price assurance for LFEs (2008-12) may impact price
- Eligible **green power and/or RECs** could be bundled with **offset credits** for green power marketing; would be necessary for **EcoLogo-certified** green power products.
- National Intensity Factor (TBD:  $\approx 200 \text{ kg/MWh} \leq \text{NIF} \leq 400 \text{ kg/MWh}$ )
- Sales to U.S. possible; may also be private arbitrage for AAUs





# Environmental (Net-)Cost Accounting in Green Power



Externality valuation: typical Canadian values of **~3 cents/kWh** for GHGs, NO<sub>x</sub>, SO<sub>x</sub> and TPM (from 1998 study by Acres International: “Estimated Environmental Benefits of Green Power Purchases for Federal Facilities”)

Ensure environmental benefits are sustained ⇒ retire offset credits and NO<sub>x</sub> & SO<sub>x</sub> allowances (without use)



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# Background



## Additional details follow on Canada's proposed domestic GHG Offset System

(Also see [http://climatechange.gc.ca/english/publications/offset\\_gg/](http://climatechange.gc.ca/english/publications/offset_gg/) )

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# Create Offset Credits – Process



1. Application of project (#1)
  - Completeness review
  - Posting to identify possible ownership claims
2. Validation of project & registration (#2)
  - Confirmation all requirements for offset project are met
  - Quantification requirements established
3. Verification of reductions/removals from a registered project (#3, #4)
  - Verified by recognized third party verifier
4. Certification & issuance of offset credits (#5)
  - Confirmation that all requirements for issuance of credits have been met

(# refer to the documents on the following slide)





# Create Offset Credits–Process (2)



	Project Proponent	Verifier	Program Authority
<b>Registration of Offset Project</b> (valid for 8 years)	<i>(1) Project Document</i>		<i>(2) Registered Project Document</i>
<b>Issuance of Offset Credits</b> (annual/periodic)	<i>(3) Reduction / Removal Report ('GHG Assertion')</i>	<i>(4) Verification Report</i>	<i>(5) Certification Report (# credits earned)</i>
<u>Reversal</u> of sink credits during liability period (if needed)	<i>Reversal Report</i>	<i>Verification Report</i>	<i>Certification Report (# credits to be <u>replaced</u>)</i>





# Create Offset Credits—Criteria



## Eligible project

- source / reservoir in Canada's GHG inventory for Kyoto reporting
- initial reductions/removals achieved in 2000 or later
- 'ownership' of reductions/removals is clear, uncontested

## Eligible reductions/removals

- net and incremental reductions/removals
  - o beyond business-as-usual (baseline)
  - o surplus to those covered by federal climate change regulations (LFE regulations) and by some federal climate change incentive programs (List of Climate Change Incentive Measures)
- quantified & verified as set out in Registered Project Document
- achieved in 2006 or later from an eligible (registered) project





# Quantification & Verification



## Quantification

- ISO 14064-part 2 framework & Offset System specifications
- 'Offset System Quantification Protocol'
  - project-type protocol - standardized, approved by Program Authority
  - used via reference; flexibility must be validated by Program Authority
- Project specific 'Quantification Methodology'

## Verification

- Project Proponent contracts for verification services
- GHG Verification Services (Environment Canada) will manage
  - recognition of verifiers
  - verification requirements, activity of verifiers





# Offset System Design—Next Steps



- Distribute consultation report
- Assess input received during consultations
- Prepare draft rules & continue consultations
- Seek Cabinet approval of Offset System design/rules
- Complete set up of Program Authority—staffing, prepare communication & guidance material, establish Offset System Registry, dispute resolution system, etc.
- Continue development of quantification protocols
- Begin validation of projects (possibly on phased-in basis) in January 2006; first credits could be issued in July 2006

